

60/3746

554,284

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
11 November 2004 (11.11.2004)

PCT

(10) International Publication Number  
WO 2004/097212 A1

(51) International Patent Classification<sup>7</sup>: F03B 13/18 // 13/14

(21) International Application Number:  
PCT/FI2004/000240

(22) International Filing Date: 20 April 2004 (20.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
20030635 25 April 2003 (25.04.2003) FI

(71) Applicant (for all designated States except US): AW-ENERGY OY [FI/FI]; Sotarovastintie 2, FIN-00370 Helsinki (FI).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KOIVUSAARI, Bruno [FI/FI]; Kumminkhovi B 10, FIN-02460 Kantvik (FI). TUOKKOLA, Yrjö [FI/FI]; Viikintie 3 B 38, FIN-00560 Helsinki (FI). JÄRVINEN, Arvo (heirress of the deceased inventor) [FI/FI]; Koivumäentie 13 F 2,

FIN-01230 Vantaa (FI). LILJELUND, John [FI/FI]; Sammakalliontie 6 F 128, FIN-02210 Espoo (FI). HÖYDEN, Antti [FI/FI]; Korkeavuorenkatu 2 a B 19, FIN-00140 Helsinki (FI). LAINEMA, Matti [FI/FI]; Sotarovastintie 2, FIN-00370 Helsinki (FI).

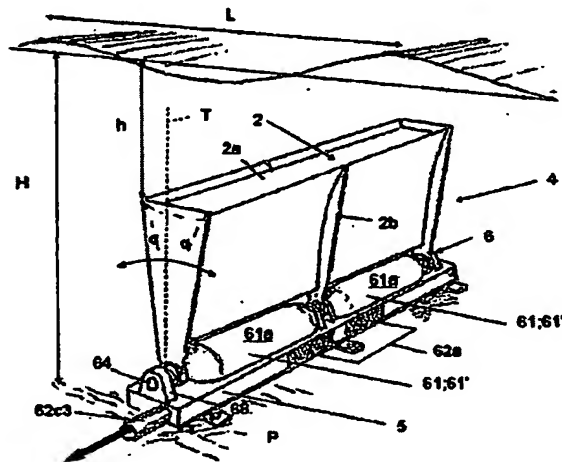
(74) Common Representative: JÄRVINEN, Arvo; Koivumäentie 13 F 2, FIN-01230 Vantaa (FI).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,

[Continued on next page]

(54) Title: PRODUCTION INSTALLATION



(57) Abstract: A production installation (1) for utilizing wave energy in which production installation there are two or more production units (4) and the water mass (V) of the water basin is adapted to actuate production units (4) or their parts located at the bottom (P) of the water basin or in close vicinity, and the production units (4) can be used to transform the kinetic energy of the water mass into some other form of energy like electric energy and/or kinetic energy and/or pressure of the intermediate agent. The production units (4) are attached directly or indirectly to the bottom of the water basin at intermediate water region (B). The production units (4) are totally submerged under water surface. The transfer equipment of the energy of the production units (4) or of the intermediate substance is connected in series or parallel in relation to each other.

WO 2004/097212 A1